

Glossary of sustainability terms

Baseline (Carbon)	A reference point (measurement) used to assess and track an organisation's greenhouse gas emissions over time. It provides a snapshot of the total amount of carbon dioxide (CO ₂) and other greenhouse gases (GHGs) emitted directly or indirectly by Lancaster University and is used to set reduction targets.
Biodiversity	The variety of plant and animal life in the world or in a habitat, a high level of which is important to the function of Earth's services such as oxygen supply, clean water, pollination of plants, pest control and medicine production. It includes diversity within species, between species and of ecosystems.
Biodiversity Net Gain	An approach to development that leaves the natural environment in a measurably better state than before. Designs and outcomes are assessed using the Defra Metric which provides a way of measuring and accounting for biodiversity losses and gains resulting from development or land management change.
Carbon Dioxide (CO₂)	A colourless, odourless greenhouse gas produced by burning carbon and organic compounds such as coal, gas, and oil.
Carbon Dioxide Equivalent (CO₂^e)	Carbon dioxide equivalent (CO ₂ ^e) is a metric used to compare and express the global warming potential (GWP) of different greenhouse gases in relation to carbon dioxide (CO ₂). Expressing their equivalent (CO ₂ ^e) impact allows for a standardised and comparable measure of all emissions that cause climate change.
Carbon Footprint	The total amount of carbon dioxide (or carbon dioxide equivalent) released into the atmosphere from the activities of a particular organisation – e.g. business travel, electricity consumption or refrigerant leakage – over a defined period.
Carbon Neutral	Making or resulting in no net release of carbon dioxide into the atmosphere often because of carbon offsetting. There is no requirement to reduce emissions; unlike Net Zero Carbon which requires an organisation to reduce carbon emissions before offsetting.
Carbon Offsetting	Compensating for carbon emissions by investing in projects designed to make an equivalent reduction of carbon in the atmosphere, such as carbon capture or carbon offset reduction projects. Investments must be in a different country to the origin of emissions and support sustainable development initiatives.
CIBSE TM54 (Standard)	A building design standard focussing specifically on the thermal (i.e. energy) performance of buildings. A detailed model allows designers to understand (i.e. predict) how a building will perform during occupation. The objective is to ensure energy consumption is monitored during occupation and determine if the building performs as predicted.

Circular Economy	An economic model that aims to move away from the traditional linear "take-make-dispose" approach for production and consumption. It focuses on designing products and processes that promote longevity, resource efficiency and reusability, to avoid product obsolescence or disposal.
Climate Change	A change in global or regional climate, often attributed to increased levels of man-made greenhouse gases, primarily carbon dioxide, in the atmosphere.
Climate Resilience (Buildings)	Climate resilience in buildings involves designing, constructing, and managing buildings in ways that enhance their ability to cope with the challenges of a changing climate (e.g. extreme wind, rain, and heat) and maintain functionality, occupant safety, and performance.
Decarbonisation (Buildings)	Reduction or elimination of carbon dioxide (CO ₂) emissions and equivalent greenhouse gas emissions (CO ₂ ^e) resulting from human activity. Examples include eliminating fossil fuels for heating, cooling, lighting, and other energy-intensive activities.
Embodied carbon	The carbon generated to produce a material or product. This includes emissions caused by extraction, manufacture, transportation and assembly of every product and element in a material or product. It may also include the maintenance, replacement, and disposal emissions.
Energy Performance (Buildings)	The measurement of how efficiently a building uses energy to meet its energy needs, which can include a comprehensive assessment of the energy used for heating, cooling, lighting, and other systems and equipment within the building.
Energy Performance Certificate (EPC)	Informs Lancaster University and its occupiers about the energy performance of a building, allowing us to make informed decisions about its energy efficiency and associated running costs. It is a legal requirement for most properties in the UK to have an EPC when they are sold, rented, or constructed.
Environmental Product Declaration (EPD)	A verified and registered document that communicates transparent and comparable information about the environmental impact of a product, including its carbon footprint. It is used to inform the specification and procurement of materials.
Fossil fuels	Fuels derived from gas or oil, formed from the remains of ancient plants and animals. Over time, these organic materials transformed into hydrocarbons. Fossil fuels are considered non-renewable because their supply is finite.
Global warming	An increase in the overall temperature of the earth's atmosphere primarily caused by greenhouse gas emissions.
Greenhouse gases	A gas that contributes to the greenhouse effect, heating the earth by absorbing infrared radiation from the sun. Examples include carbon dioxide, methane, and refrigerant gases.
ISO14001	A certified framework that a company or organisation can follow to set up an environmental management system. Lancaster's ISO14001 details can be found online here .

LEAF	Laboratory Efficiency Assessment Framework (LEAF) is an external accreditation standard for the improvement of laboratory sustainability and research quality.
Lifecycle Analysis (LCA)	A recognised multi-criteria analysis that evaluates numerous environmental impacts associated with all stages of the lifecycle of a product or building. This can include energy use, carbon emissions and air pollution. Environmental Product Declarations (EPDs) use the LCA methodology.
Lifecycle Costing (LCC)	A recognised financial analysis method used to evaluate the total cost of owning, operating, and maintaining a building over its entire life cycle. It is a comprehensive approach that considers not only the initial acquisition or construction costs but also all the costs associated with the building throughout its useful life – e.g. maintenance.
Low Carbon Economy	Decarbonized economy is based on low-carbon power sources with minimal greenhouse gas (GHG) emitted into the atmosphere. The UK Government has committed to decarbonising the electricity grid by 2035.
Material reuse	Material being used again for the same purpose that it was originally made for, rather than being downcycled, remanufactured, recycled, or sent to landfill.
Net Zero Carbon	All carbon emissions are reduced in line with the Paris Agreement 1.5° C trajectory, with residual emissions offset through carbon removals or avoided emissions.
Net Zero Carbon Pathway (Company)	The Pathway outlines the steps and strategies necessary for Lancaster University to achieve net-zero carbon over a defined period of time (e.g. by 2035), in line with a specified target (e.g. Science-based Target).
Net Zero Carbon Standard for Buildings	A performance-based standard aimed at achieving net-zero carbon emissions in buildings. The standard sets guidelines and targets for reducing greenhouse gas emissions associated with building operations to a level where any remaining emissions are balanced or offset.
Operational carbon emissions	Carbon emissions resulting from the operation of a building. This includes all carbon derived from the energy consumed by and within a building such as lighting, heating/cooling, ventilation, and small electrical power.
Physical Risks	Economic costs and financial losses resulting from the increasing severity and frequency of extreme climate change-related weather events, longer-term gradual shifts of the climate such as changes in precipitation and indirect effects of climate change such as loss of ecosystem services.
REGO-certified renewable energy	Renewable energy certificates (RECs) or guarantees of origin (GOs) are used to certify and track the production of renewable energy. These certificates represent proof that a certain amount of electricity was generated from renewable sources such as solar, wind, hydro, or biomass.

Renewable energy	Renewable energy comes from a source that is not depleted when used. Renewable technologies, such as solar and wind, help net zero carbon buildings reduce reliance on energy from non-renewable sources such as fossil fuels.
Responsible sourcing (Materials)	The practice of procuring building materials and products in a manner that considers their environmental, social, and ethical impacts throughout their entire lifecycle. It involves ensuring that materials are obtained from suppliers who prioritize sustainability, ethical labour practices, and environmentally responsible production methods. Recognised standards for responsible sourcing include BES6001.
Science-based Target (SBT)	Carbon reduction target aligned with the latest climate science deemed necessary to meet the goals of the Paris Agreement — limiting global warming to well-below 2°C above preindustrial levels and pursuing efforts to limit warming to 1.5°C.
Scope 1 (Carbon emissions)	Greenhouse gas emissions that are directly generated from sources owned and controlled by Lancaster University, for example burning gas within company-owned boilers, or fossil fuels within company-owned vehicles.
Scope 2 (Carbon emissions)	Greenhouse gas emissions that are associated with the purchase and consumption of electricity within buildings or assets owned and controlled by Lancaster University, for example our Head Office, common parts and void properties.
Scope 3 (Carbon emissions)	Also known as indirect emissions, these are greenhouse gas emissions that occur from activities outside the direct operational control of Lancaster University. Scope 3 emissions result from activities along our entire value chain. Examples include embodied carbon from our refurbishments and energy consumed by customers occupying our buildings.
Sustainability	Meeting the needs of the present without compromising the ability of future generations to meet their own needs. Finding a balance between our economic, social and environmental imperatives.
UN SDGs	The Sustainable Development Goals (SDGs) were adopted by the United Nations in 2015 as a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity. Every year Lancaster reports progress against the SDGs .
Zero Carbon	Reducing carbon emissions from operations to zero so that we no longer need to offset. This is a stretching ambition for our business wherever possible and requires us to eliminate all emissions from our activities.

For British Sign Language (BSL) version of sustainability and curriculum terms, please visit the [SSC website](#).